

WHAT IS CLAIMED IS:

1. A method (300) for reducing channel change times, comprising:
receiving a channel change command (301);
5 caching an incoming data stream in response to the channel change command (302);
finding program specific information (PSI) included within the incoming data stream (303/304/305); and
transferring the cached data stream for decoding in response to the finding of
10 the program specific information (307).
2. The method (300) of claim 1, wherein the program specific information (PSI) comprises program association table (PAT) data and program map table (PMT) data.
- 15 3. The method (300) of claim 1, wherein the step of finding the program specific information (PSI) includes filtering data from the cached data stream (304).
4. The method (300) of claim 3, wherein the data filtered from the cached
20 data stream comprises program map table (PMT) data.
5. The method (300) of claim 1, further comprised of finding sequence header data within the cached data stream.
- 25 6. The method (300) of claim 1, wherein the step of finding the program specific information (PSI) comprises:
finding program association table (PAT) data within the incoming data stream;
finding program map table (PMT) data using the program association table (PAT) data; and
30 finding at least one of video program identification (PID) data and audio program identification (PID) data using the program map table (PMT) data.
7. An apparatus (100), comprising:
memory means (103) for caching an incoming data stream responsive to a channel change command;

processing means (101) for finding program specific information (PSI) included within the incoming data stream; and

decoding means (104) for decoding the cached data stream responsive to the processing means (101) finding the program specific information.

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8. The apparatus (100) of claim 7, wherein the program specific information (PSI) comprises program association table (PAT) data and program map table (PMT) data.

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9. The apparatus (100) of claim 7, further comprising transport means (104) for filtering data, and wherein the processing means (101) finds the program specific information (PSI) by filtering data from the cached data stream via the transport means (104).

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10. The apparatus (100) of claim 9, wherein the data filtered from the cached data stream by the transport means (104) comprises program map table (PMT) data.

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11. The apparatus (100) of claim 7, further comprised of the decoding means (104) finding sequence header data within the cached data stream.

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12. The apparatus (100) of claim 7, wherein the processing means (101) finds the program specific information (PSI) by finding program association table (PAT) data within the incoming data stream, finding program map table (PMT) data using the program association table (PAT) data, and finding at least one of video program identification (PID) data and audio program identification (PID) data using the program map table (PMT) data.

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13. The apparatus (100) of claim 7, wherein the apparatus (100) is a digital subscriber line (DSL) set-top box.

14. A digital communication apparatus (100) having reduced channel change times, comprising:

means for receiving a data stream;

means for receiving a channel change command;

a cache memory (103) operative to store a portion of the data stream;

a decoder (104) operative to decode the data stream;

5 a processor(101), coupled to the receiving means, the cache memory, and the decoder, for causing, in response to receipt of the channel change command, the portion of the data stream that follows the receipt to be stored in the cache memory, for identifying desired program specific information in response to the channel change command, and for causing the data stream stored in the cache memory to be processed by the decoder in response to the identifying of the desired program
10 specific information.

15 15. The digital communication apparatus (100) of claim 14, wherein the program specific information (PSI) comprises program association table (PAT) data and program map table (PMT) data.

20 16. The digital communication apparatus (100) of claim 14, further comprising a transport (104) operative to filter data, and wherein the processor (101) is operative to find the program specific information (PSI) by filtering data from the cached data stream via the transport (104).

25 17. The digital communication apparatus (100) of claim 16, wherein the data filtered from the cached data stream by the transport (104) comprises program map table (PMT) data.

30 18. The digital communication apparatus (100) of claim 14, wherein the decoder (104) is further operative to find and process sequence header data within the cached data stream.

19. The digital communication apparatus (100) of claim 14, wherein the processor (101) is operative to find the program specific information (PSI) by finding program association table (PAT) data within the incoming data stream, finding program map table (PMT) data using the program association table (PAT) data, and

finding at least one of video program identification (PID) data and audio program identification (PID) data using the program map table (PMT) data.

20. The digital communication apparatus (100) of claim 14, wherein the
5 apparatus (100) is a digital subscriber line (DSL) set-top box.